

46. *PALUMBUS ARQUATRIX* (Temm.).

Palumbus arquatrix, Shelley, Ibis, 1883, p. 283.

♂, 10,000 ft.

Bare skin round eyes, bill, and feet saffron-yellow. This specimen agrees perfectly with others from Natal. Only noticed at great attitudes from 8500 ft. to 10,300 ft. Seen in pairs in the dense forests, sometimes in company with *Turacus hartlaubi*.

47. *TYMPANISTRIA TYMPANISTRIA* (Temm.).

Tympanistria tympanistria, Shelley, Ibis, 1883, p. 326.

Peristera tympanistria, Fischer, Zeitschr. ges. Orn. (Madaraz), 1884, p. 278.

♀, 5000 ft.

48. *FRANCOLINUS SCHUETTI*, Cab.

Francolinus (Scleroptera) schuetti, Cab. J. f. O. 1880, p. 351; 1881, pl. 2.

Francolinus schuetti, Fischer, Zeitschr. ges. Orn. (Madaraz), 1884, p. 382.

♂, 6000 ft.

Frequents the rocks and was very abundant at 5000 ft. It was not met with in the plains.

49. *FRANCOLINUS ALTUMI*, Fischer & Reichen.

Francolinus altumi, Fischer & Reichen. J. f. O. 1884, p. 179, pl. 2; Fischer, Zeitschr. ges. Orn. (Madaraz), 1884, p. 383.

♂, 6000 ft.

This species frequents the plains more than the mountains.

50. *IBIS HAGEDASH* (Lath.).

Ibis hagedasch, Fischer, Zeitschr. ges. Orn. (Madaraz), 1884, p. 386.

♀, 3000 ft. Irides scarlet.

Shot in a marsh near Taveita out of a small flock of ten or twelve.

4. On the Insects collected on Kilima-njaro by Mr. H. H. Johnston. By CHAS. O. WATERHOUSE.

received February 3, 1885.]

(Plate XV.)

COLEOPTERA.

The series of Coleoptera collected by Mr. Johnston comprises examples of fifty-six species. Many of them belong to widely distributed genera and are not of special interest.

Of the nine species taken at an elevation of 10,000 to 14,000 feet the following are worthy of note:—Two examples of *Carabus*



1.



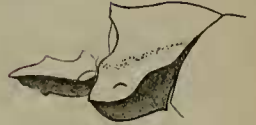
3.



2.



3 a.



2 a.



4.



6.



5.



deckeni, Gerstaecker, which was described from a single female example found in this mountain. The species, however, proves to be a *Calosoma*, and not a *Carabus*, and is nearly allied to a species found in Abyssinia.

There is a single specimen of one of the Trichiidæ, which I have provisionally placed in the genus *Calometopus*, although the clypeus not being emarginate it is possible that a new genus may have to be made for its reception. I have named the species *Calometopus planatus*. There are only two species of this genus known, *C. senegalensis* and *C. nyassæ*.

The third species to which I would call attention is one of the Heteromera of the family Molaridæ. I have named it *Melanolophus ater*; it appears to be most nearly allied to *M. septemcostatus*, described by Fairmaire in Revoil's 'Faune et Flore des Pays Comalis,' but which, if I have correctly determined it, occurs also in Abyssinia.

Of the species found at lower elevations the majority, so far as I have identified them, are only known from South-east Africa (e. g., *Melyris parvula*, Gerst., *Himatismus buprestoides*, Gerst., *Amiantus castanopterus*, Haag, *Sepidium muscorum*, Gerst., *Anomalipus heraldicus*, Gerst., *Mylabris kersteni*, Gerst., *Epicauta dichrocera*, Gerst., *Rhopaligus sansibaricus*, Gerst., *Phrissoma giganteum*, Guérin); others are found in most parts of Africa (e. g., *Calosoma senegalense*, Dej., *Oryctes boas*, Fabr.).

Of the new species which I describe, *Scarabæus cribricollis* has its nearest ally, so far as I know, in an Indian species *S. sanctus*, Fabr.; *Amblysterna johnstoni* is nearest to *A. natalensis*, Fabr.

CARABIDÆ.

CARABUS DECKENI, Gerst.

This interesting species was described by Dr. Gerstaecker (Wiegman. Arch. f. Naturg., 1867, p. 10; Von der Decken's Reise in Ost-Africa, iii. p. 56, pl. iv. f. 2) from a single female example found by Dr. Kersten on Kilima-njaro at an elevation of 8000 feet.

The two examples, male and female, found by Mr. Johnston differ from the female described by Dr. Gerstaecker in being rather smaller (only 13 millim. long), and, so far as one can judge from description, in having the elytra smoother with less impressed striæ.

Dr. Gerstaecker remarks on the fact of a species of *Carabus* being found in this locality, none ever having been found before in South Africa. The species, however, is not a *Carabus*, but a *Calosoma*, as is indicated by the compressed third joint of the antennæ; a character which Dr. Gerstaecker overlooked when he stated that the separate joints of the antennæ are formed as in *Carabus pumilio*.

SCARABÆIDÆ.

SCARABÆUS CRIBRICOLLIS, n. sp. (Plate XV. fig. 1.)

Black, somewhat dull. Head closely and very strongly punctured, the punctures longitudinally confluent on the front of the clypeus, the anterior teeth of which are rather acute and moderately reflexed.

Thorax nearly twice as broad as long, moderately convex, with a transverse impression in the middle of the base. In the middle of the disk is a shining (but finely punctured) line, which does not extend much beyond the middle; all the rest of the surface is strongly punctured; the punctures near the shining line are a little separated from each other, but at the sides and on the fore part they are crowded together and asperate; the sides are strongly rounded, finely serrate, and fringed with black hair. The elytra are a little narrower than the thorax, very slightly narrowed posteriorly, dull, but with the suture shining; the striæ are fine, the interstices flat and finely coriaceous (except the sutural interstices and the scutellar region), with numerous dull shallow punctiform impressions placed very irregularly. Femora and tibiæ fringed with black hair. Sternum smooth and shining, with a well-marked broad impression between the intermediate legs.

Length 22 millim.

This species most nearly resembles the Indian *Scarabæus sanctus*, Fabr. The sides of the thorax are, however, more regularly rounded, much less sinuate before the posterior angles; the shining discoidal line is broader, and there are no smooth spots on each side of this line. The elytra have the striæ finer and neater, the interstices are flatter, coriaceous, with the punctiform impressions smaller and more separated from each other.

ONTHOPHAGUS JOHNSTONI, n. sp. (Plate XV. fig. 2.)

Entirely black, except the apex of the antennæ, which is rusty-yellow. Head as long as broad, obliquely narrowed in front of the middle, rounded at the apex, closely and coarsely rugose, except near the eyes. There is a slightly raised straight ridge between the eyes, and a second, longer one halfway between this and the front of the clypeus. The thorax is smooth, shining at the sides and in front, slightly dull above; the fore part is perpendicularly truncate; the truncature bounded above by a slightly prominent ridge; viewed from the front there are three shallow impressions: on each side there is a line of small tubercles bounding the discoidal area; the surface of the disk is moderately closely but extremely delicately punctured, and appears impunctate to the naked eye; the sides are more distinctly punctured: the base is oblique on each side, and is angularly produced in the middle. The elytra are convex, shining, not quite twice as wide as the length at the suture, rounded at the sides and apex, very delicately striated, the striæ delicately punctured; the interstices flat, sparingly punctured; near the suture the punctures are extremely delicate but become more distinct towards the sides. The pygidium is rather sparingly but distinctly punctured. The sides of the sterna, the margins of the femora, and the posterior tibiæ are fringed with long black hair.

Length 21-25 millim.

I know of no species which much resembles this. Its most nearly is a species which I have seen named *O. noctis*, Th., in Mr.

Bates's collection. The species has somewhat the general build of *O. marsyas*, Ol. ; the head is longer, the clypeus not sinuous at the sides ; the thorax rather flatter above, with a prominent, nearly straight ridge in front above the anterior perpendicular truncature ; the anterior angles are as if truncated ; the base is more angularly produced in the middle of the base ; the elytra are scarcely narrowed at the base, &c.

TRICHIIDÆ.

CALOMETOPUS (?) PLANATUS, n. sp. (Plate XV. fig. 3.)

Nearly black ; the elytra dark testaceous, with the suture, margin, and a lunate spot near the scutellum smoky black. Antennæ and tibiæ reddish yellow, the margin of the abdominal segments pale yellow. Head very closely and rather strongly punctured ; the clypeus more finely punctured, a little broader than long, *not* emarginate at the apex, but slightly arcuate, the angles obtuse ; all the margins reflexed. Thorax a very little broader than long, moderately convex, very strongly and rather closely punctured, parallel at the sides to considerably in front of the middle, where it is obliquely narrowed ; the anterior angles nearly right-angles, very slightly prominent ; the posterior angles obtusely rounded ; the base gently arcuate and margined : on the disk there is a slight impression a little in front of the middle : the sides have the lateral ridge only behind the middle and at the anterior angle ; the slightly swollen under flank is thus not separated from the upper surface of the thorax in front of the middle. Scutellum elongate, triangular, strongly punctured. Elytra twice as broad as the thorax, a little longer than broad ; flat, with the sides nearly perpendicularly deflexed ; dull, the suture and sublateral ridge shining : each elytron with six somewhat irregular dorsal lines of dark punctures ; the apex closely rugulose. Pygidium closely vermiculate-strigose. Club of the antennæ a little longer than all the previous joints taken together. Body beneath and the legs sparingly clothed with yellow hair. Anterior tibiæ obtusely tridentate. The posterior tibiæ with a triangular tooth a little below the middle ; the edge above this tooth with four or five small teeth. Tarsi long and slender ; claws red. Abdomen shining, not very closely but strongly punctured ; the basal segment yellow in the middle, margined with yellow at the sides.

Length 12 millim.

A single example was met with. It is probable that this species may have to be separated from *Calometopus* on account of the form of the clypeus, which is not emarginate. Never having seen the type of the genus (*C. senegalensis*), I am unable at present to say in what other way it differs.

BUPRESTIDÆ.

AMBLYSTERNA JOHNSTONI, n. sp. (Plate XV. fig. 4.)

Size and general form of *A. natalensis*, Fabr. Golden green,